



JENNIFER M. GRANHOLM  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
LANSING



STEVEN E. CHESTER  
DIRECTOR

February, 2004

Dear Applicant:

SUBJECT: Permit Application for New Nontransient Noncommunity Water System

Effective October 1, 1999, a new nontransient noncommunity public water system cannot start construction until the owner has satisfactorily demonstrated the facility has the capacity to comply with the provisions of the Safe Drinking Water Act (SDWA), 1976 PA 399, as amended. Capacity is defined as the overall capability of a water supply to reliably produce and deliver water meeting all national primary drinking water regulations in effect or likely to be in effect, on the date of commencement of operation.

Capacity encompasses the technical, managerial, and financial capabilities that enable the water system to plan, achieve, and maintain compliance with drinking water standards of the SDWA. **The following forms are enclosed and required to be completed and submitted with the well permit application to obtain approval to construct the water system:**

- ◆ **Technical Capacity** – will be assessed through the well permit application, construction, and final inspection process. The completed permit application must be approved prior to commencing construction of the water system. Inspection and final approval is required prior to supplying water to the public.
- ◆ **Managerial Capacity** – will be assessed upon review and approval of the managerial plan that includes the designation of a certified operator and completion of the enclosed contingency plan.
- ◆ **Financial Capacity** – will be assessed upon review and approval of a financial plan demonstrating the supply is aware of and capable of meeting financial obligations associated with operating a public water supply. A summary of sampling requirements and the Department of Environmental Quality Laboratory fee schedule for analysis is enclosed for purposes of estimating costs.

Please contact the permitting Agency if you have question about what is necessary to complete the permit application and forms. Thank you

Enclosures

## Nontransient Noncommunity Water Supply Capacity Development Application

Under Michigan Rule, 325.1004, Sec. 4. (2) (4), 325.1008, Sec. 8 and 325.1015, Sec 15. (2), this form must accompany construction plans submitted for all **new nontransient noncommunity public water supplies**, and existing supplies applying to become a nontransient water supply.

### Technical Plan:

Permit to Construct

- New nontransient noncommunity public water supplies** shall complete an “Application and Permit to Install Water Supply Facilities” from Department of Environmental Quality (DEQ) or an authorized local health department representative. The completed application must include plans and specifications for the new waterworks system. The application form **EQP 2024 (10/97)**, or DEQ approved permit application, is attached.
  
- Existing water supply** that will become a nontransient water supply shall provide plans and specifications of the waterworks system. The information must include a site plan showing the existing well location isolation from buildings, property boundaries, potential sources of contamination, etc., and all available information regarding the well, e.g., *Water Well and Pump Record*. A sanitary survey must be completed by the local health department to assess the status of compliance of the water supply prior to approval for use as a nontransient noncommunity water supply.

### Managerial Plan:

Certified Operator

For all nontransient noncommunity water supplies, the owner is required to identify an operator in responsible charge of the water supply. Operator certification and nine hours of continuing education training every three years will be required. Identify the person who is or will be the certified operator for the identified nontransient water supply.

Operator Name:	
Street Address:	
City, State, Zip Code	
Telephone:	
Water Supply Serial Number(WSSN):	

Operator Signature \_\_\_\_\_ Date: \_\_\_\_\_

Contingency Plan

A contingency plan for an appropriate response to temporary loss of normal water service is required as part of the managerial capacity assessment. The attached contingency plan form is to be completed and submitted with the rest of this application.

**Financial Plan:**

The attached Financial Plan Worksheet is to help identify relevant costs and sources of information. Please transfer the estimate totals to this form and retain the worksheet.

***Provide cost analysis/estimate for the following:***

Estimated cost for construction of new nontransient noncommunity water supply system, e.g., well, pressure tank, treatment, permit fees. \_\_\_\_\_

Is connection to a community water supply system available? Yes  No

If connection to a community water is available, provide the cost for connecting to the community system. \$ \_\_\_\_\_

Annual operator certification and training. \$ \_\_\_\_\_

Annual operation and maintenance for utilities, treatment chemicals, DEQ annual fee, etc. \$ \_\_\_\_\_

Annual sample collection and laboratory analysis. \$ \_\_\_\_\_

Emergency repairs and contingency plan funds. \$ \_\_\_\_\_

**By signing this document I certify that I have assessed the actual and potential costs and responsibilities of operating the water supply, and have the ability to acquire and manage sufficient resources to maintain the technical, managerial and financial capacity of the water system as it relates to the requirements of the Safe Drinking Water Act, and I am the supply owner, manager, chief financial officer, or chief executive officer.**

Signature: \_\_\_\_\_ Name (print): \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

For office use	Reviewer and date of review
Technical Capacity Plan	
Financial Capacity Plan	
Managerial Capacity Plan	

## FINANCIAL PLAN WORKSHEET FOR ESTIMATING COSTS FOR NEW NONTRANSIENT NONCOMMUNITY WATER SUPPLIES

This worksheet is to provide general information and ranges of cost for completing the Financial Plan portion of a Capacity Assessment Application. The intent is for the water supply owner to identify costs of operating a public water system including contingencies and plan accordingly. All costs may not be applicable to your water supply.

### **Construction Costs Estimates:**

Well Construction/Pump Installation	\$	
Storage Tank(s)	\$	
Treatment Equipment	\$	
Permit Fees	\$	
TOTAL	\$	

Information sources: water well drilling contractors, water well pump installers, suppliers, water treatment firms, local health department fee schedule, consulting firms.

### **Cost of Connection to Municipal Water (if available):**

Tap fee	\$	
Hook up (excavation, materials, labor, etc.)	\$	
Usage (estimated annual water bills)	\$	
Information Sources: (municipality, contractors, consultants)	\$	
TOTAL	\$	

### **Operator Certification and Training:**

Certification Costs:	\$	
Filing, examination/renewal*	\$	
Wages (3 hrs per week to full time depending on system)	\$	
Outsource Operator	\$	
Training Costs:		
Continuing Education (minimum of 3 hrs/yr)*	\$	
TOTAL	\$	

Information sources: employee salary structures, travel costs, certified operators for hire, consulting firms  
 \*DEQ currently does not charge for the examination process or training seminars but may do so in the future.

**FINANCIAL PLAN WORKSHEET (cont.)**

**Annual Water Supply Operation & Maintenance:**

Electricity		\$ _____
Treatment Chemicals/Treatment Equipment/Service		\$ _____
Backflow Preventor Testing		\$ _____
DEQ Annual Water Supply Fee		\$ _____
Other		\$ _____
	TOTAL	\$ _____

Information sources: utilities, chemical/equipment suppliers, plumbing contractors, consulting firms.

**Water Sample Collection and Analysis:**

Annualized costs for analysis based on routine sampling for all parameters with waivers and DEQ laboratory fees (subject to change).

Total Coliform	4 @ \$16	64.00	\$ _____
Nitrate	1 @ \$18	18.00	\$ _____
Arsenic	1 @ \$18/ 3 yr freq	6.00	\$ _____
Metals	1 @ \$102/ 3 yr freq	34.00	\$ _____
Cyanide	1 @ \$25 / 3yr freq	8.00	\$ _____
VOC	1 @ \$100 / 6 yr	17.00	\$ _____
SOC	3 totaling \$365/ 6 yr	61.00	\$ _____
Lead Copper	5 @ \$26 / 3 yr freq	<u>44.00</u>	\$ _____
		\$252.00*	
Sample Collection/Delivery Costs			\$ _____
	TOTAL		\$ _____

\*Your cost may differ per year due to size of system, sampling requirements, or water quality issues.  
Information sources: certified drinking water laboratories, consulting firms, DEQ monitoring requirements.

**Emergency Repairs/Contingency Funds:**

Disinfection/Flushing	\$ _____
Bottled Water (cost for 2 week supply)	\$ _____
Pump Replacement	\$ _____
Other	\$ _____
	TOTAL
	\$ _____

Information sources: well drilling/pump contractors, bottled water suppliers.

**DRINKING WATER CONTINGENCY PLAN**  
**Noncommunity Public Water Supplies**

Water Supply Name \_\_\_\_\_

Water Supply Serial Number (WSSN) \_\_\_\_\_

**Contingency Plan Purpose:** *In the event of an emergency pertaining to the drinking water supply, it is necessary to act promptly and effectively to protect public health and welfare. In the context of this plan, emergencies could include complete loss of water pressure, contamination of water supply, and threats or observed vandalism to water supply. Complete loss of water normally would require closure of the facility. Threats or contamination with unknown substances may also warrant such action. However, under certain situations where water is flowing but has been determined unsafe to drink by health authorities, it may be possible to operate the facility with approval of the appropriate local or state agencies. If approved, operation for an interim period is dependent on providing an approved source of water for consumption and notification to the users to not consume the piped water in the facility. This fact sheet is intended to outline procedures and contacts to address such emergencies. If an emergency occurs, immediately contact your local health department for further instructions.*

1. **Facility Personnel:** List person(s) responsible for facility (owner or designee) and person(s) in routine charge of water system operation and treatment (certified operator) title and telephone number.

<u>Name</u>	<u>Title</u>	<u>Phone</u>
_____	_____	_____
_____	_____	_____

2. **Other Contacts:** List local and state contacts for notification of emergencies involving drinking water.

Local Health Department contact: \_\_\_\_\_ Telephone: \_\_\_\_\_

Department of Environmental Quality - Water Bureau - Lansing,  
Telephone 517-373-1300:

DEQ District Office: \_\_\_\_\_ Name: \_\_\_\_\_ Tel: \_\_\_\_\_

3. **Certified laboratory:** List local laboratory(s) and telephone number used by your facility for analysis of total coliform bacteria.

\_\_\_\_\_

4. **Contractors:** List qualified contractors who may be used during emergencies.

Water Well Drilling Contractor: \_\_\_\_\_

Plumber: \_\_\_\_\_

Other: \_\_\_\_\_

5. **Alternate Water Source:** List options for providing safe source of drinking water on a temporary basis:

Purchase bottled water at: \_\_\_\_\_ Quantity: \_\_\_\_\_

Method of dispensing water to individuals in sanitary manner: \_\_\_\_\_

Other Alternate approved source: \_\_\_\_\_

6 **Other consumptive water uses or equipment that may be directly connected to the potable water supply.** Indicate if any of the listed water uses are in the facility and thus need to be addressed.

Drinking Fountains to shut off: Yes / No

Ice machines (discard contents): Yes / No

Post mix soft drinks to disconnect: Yes / No

A coffee machine, tea, juices, soups, vending, etc. Yes / No

Other: \_\_\_\_\_

**Note: If the water supply loses pressure or cannot be used due to unsafe conditions, any equipment used for food service or consumption which is connected to the water supply will need to be disinfected per the manufacturer's specifications.**

7. **Public Notification:** Consumers are to be advised of a problem with the water and availability of an alternate source of water for consumption.

➤ Post public notice at sinks and any other potential drinking water outlets that can not be shut off. List locations to be posted:

\_\_\_\_\_  
\_\_\_\_\_

➤ Retain copy of signed and dated public notice. List any other means to notify public.

*(Schools/Child Care Centers/Children's Camps are recommended to provide notice to parents.)*

\_\_\_\_\_  
\_\_\_\_\_

Consult your local health department for the required public notification language and format. **YOU MUST HAVE APPROVAL FROM YOUR LOCAL HEALTH DEPARTMENT PRIOR TO RESUMING USE OF YOUR WATER SUPPLY FOR CONSUMPTION.**

## Total Coliform Monitoring Transient and Nontransient Noncommunity Water Supplies Routine Sampling - One Annual Cycle

Systems that Serve >1000 persons / day (monthly) <sup>1</sup>	●	●	●	●	●	●	●	●	●	●	●	●	Analytical Cost <sup>3</sup> \$16 per sample
Systems that Serve <1001 (quarterly)	●			●			●			●			
Reduced (annual) <sup>2</sup>	●												

**PLEASE SAMPLE WELL IN ADVANCE OF END OF MONITORING PERIOD TO AVOID PROBLEMS**

1. Two samples per month minimum, more than 2/month required if serving > 2500 persons, consult local health department or DEQ.
2. Reduction must be in writing by local health department or DEQ, not applicable to systems serving over 1,000 persons.
3. DEQ Laboratory analytical cost per sample, subject to change. You may use any certified laboratory.

## Nitrate Monitoring Transient and Nontransient Noncommunity Water Supplies Routine Sampling - One Annual Cycle

Nitrate (annual)	●	Analytical Cost <sup>3</sup> \$18
Nitrite (one time)	1 only, no further sampling required in subsequent years unless initial result is greater than 0.5 mg/l	

**PLEASE SAMPLE WELL IN ADVANCE OF END OF MONITORING PERIOD TO AVOID PROBLEMS**

## Additional Chemical Monitoring Nontransient Noncommunity Water Supplies Only (Minimum Requirements)

Analyses	9 Year Monitoring Period				9 Year Monitoring Period			Analytical Cost <sup>4</sup>
	3 Year Cycle		3 Year Cycle	3 Year Cycle	3 Year Cycle	3 Year Cycle	3 Year Cycle	
	1993-1995		1996-1998	1999-2001	2002-2004	2005-2007	2008-2010	
VOC <sup>1</sup>	●			●		●		\$100
SOC <sup>1</sup>	●			●		●		\$365
Metals <sup>2</sup>	●		●	●		●		\$102
Cyanide <sup>2</sup>	●		●	●		●		\$25
Lead & Copper <sup>3</sup>	6 mo ●	6 mo ●	1 yr ●	1 yr ●	●	●	●	\$26 per sample
Arsenic <sup>5</sup>						●	●	\$18 per sample

**PLEASE SAMPLE WELL IN ADVANCE OF END OF MONITORING PERIOD TO AVOID PROBLEMS**

1. Volatile/Synthetic Organic Chemicals (VOC/SOC) – a waiver based on no detects and low vulnerability allows 1 per 6 year reduction, otherwise, quarterly sampling and additional parameters are required, contact your local health department or the DEQ.
2. Metals and Cyanide – 1 sample every 3 years, then can be reduced to 1 sample every 9 years if below maximum contaminant level.
3. Lead/Copper - Initial samples for two consecutive six month periods, then can be reduced to annual if below action level, then every 3 years.
4. DEQ Laboratory analytical cost per sample, subject to change. You may use any certified laboratory.
5. Arsenic – New rule implementation January 23, 2006; monitoring started: 2005

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER BUREAU  
FEE SCHEDULE FOR TESTING REQUIRED FOR NONCOMMUNITY WATER SUPPLIES**

**MICROBIOLOGY**

TEST CODE	FEE	SAMPLE UNIT NUMBER	TEST DESCRIPTION
BPTC	\$16.00	30, 30A-6 bottles	DRINKING WATER COLIFORMS (total & E.coli)

**INORGANIC CHEMISTRY**

TEST CODE	FEE	SAMPLE UNIT NUMBER	TEST DESCRIPTION
R	\$18.00	32	Automated Partial Chemistry (fluoride, chloride, hardness, nitrate, nitrite, sulfate, sodium, iron)
CCN	\$25.00	36 CN	Cyanide (for supplies without continuous chlorination). Sample waived for systems with continuous chlorination

**METALS CHEMISTRY**

TEST CODE	FEE	SAMPLE UNIT NUMBER	TEST DESCRIPTION
CMET2	\$102.00	36ME	Metals (SB,AS,BA,BE,CD,CR,HG,PB,SE,NI,TL)
CCUB	\$26.00	36CC	Lead/Copper for corrosion control
CAS	\$18.00	36ME	Arsenic

**VOLATILE ORGANIC CHEMISTRY (VOC)**

TEST CODE	FEE	SAMPLE UNIT NUMBER	TEST DESCRIPTION
CXVO	\$100.00	36VO	Organic solvents by ITD

**SYNTHETIC ORGANIC CHEMISTRY (SOC) NONVOLATILE**

TEST CODE	FEE	SAMPLE UNIT NUMBER	TEST DESCRIPTION
CXPT	\$125.00	36NV	Pesticides Screening by ECD & NPD
CXHB	\$120.00	36NV	Chlorinated Acid Herbicides
CXLP	\$120.00	36LP 36LPa	Carbamates by HPLC/PCD for systems without continuous chlorination. Supplies with continuous chlorination use unit 36LPa

**ADDITIONAL MONITORING IF TREATING WITH A DISINFECTANT - chlorine (gas or hypochlorite), chloramine, chlorine dioxide, or ozone (contact your Local Health Department or the DEQ before sampling)**

TEST CODE	FEE	SAMPLE UNIT NUMBER	TEST DESCRIPTION
TTHM	\$65.00	36VO	Total TriHalomethanes
HAA5	\$130.00	36HA	Haloacetic Acids
CDBP	\$75.00	32A	Disinfection Byproducts – Bromate
CDBP	\$75.00	32A	Disinfection Byproducts – Chlorite

**ADDITIONAL VOC/SOC REQUIRED IF NO WAIVER IS ALLOWED (contact your Local Health Department or the DEQ before sampling)**

TEST CODE	FEE	SAMPLE UNIT NUMBER	TEST DESCRIPTION
CXEV	\$70.00	36VO	EDB AND DBCP by GC/MS
CXDQ	\$150.00	36DQ	Diquat & Paraquat
CXHA	\$130.00	36HA	Dalaphon and Haloacetic
CXGY	\$100.00	36GY	Glyphosate
CXEN	\$150.00	36EN	Endothall

Costs and codes are unique to the DEQ laboratory and subject to change. You may use any laboratory certified by the DEQ to conduct the required tests. This summary depicts the commonly required testing for noncommunity water supplies. Additional information on schedule can be obtained at

<http://www.michigan.gov/deqnoncommunitywatersupply>